

### 3. Definition of Environmental Labeling

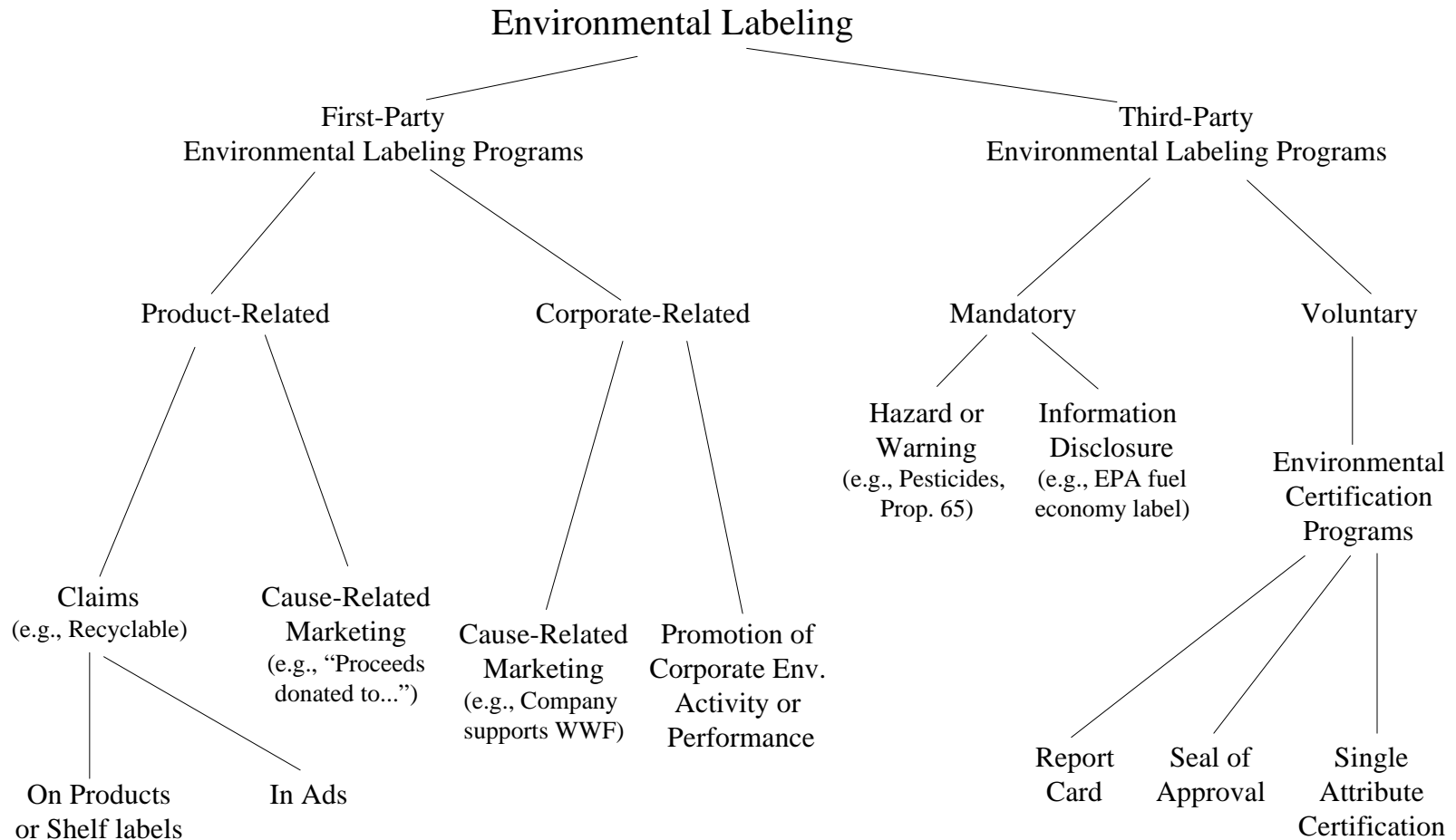
Labeling programs can be classified according to a number of program characteristics (see Chart 3-1). One of the most important is whether or not the program relies on first-party or third-party verification.<sup>6</sup> The former is performed by marketers on their own behalf to promote the positive environmental attributes of their products.<sup>7</sup> Programs relying on first-party verification are not addressed in this report. Third-party verification is carried out by an independent source that awards labels to products based on certain environmental criteria or standards. Environmental labeling programs can also be characterized as positive, negative, or neutral. Positive labeling programs typically certify that labeled products possess one or more environmentally preferable attributes. Negative labeling warns consumers about the harmful or hazardous ingredients contained in the labeled products. Neutral labeling programs simply summarize environmental information about products that can be interpreted by consumers as part of their purchasing decisions. Third-party environmental labeling programs can be further classified as either mandatory or voluntary. Mandatory programs include hazard or warning labels, and information disclosure labels. Voluntary labels are typically positive or neutral, and are further classified as either report cards, seal-of-approval, or single-attribute certification programs. A classification of each type of positive, negative, and neutral labeling program is presented on the following page.

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<sup>6</sup> Verification refers to the process by which an assessment and/or verification determines that products and services meet specified criteria or claims.

<sup>7</sup> Attributes refer to certain unique characteristics of the product.

**Chart 3-1: Classification of Environmental Labeling**



### **3.1. Positive Labeling Programs**

Third-party verification programs are typically voluntary in nature and identify positive or neutral environmental aspects of a product. Labeling programs focusing on the positive attributes of a product are divided into two types: seal-of-approval (the most common) and single-attribute certification programs. They are described below.

#### *Seal-of-Approval Programs*

Seal-of-approval programs award or license the use of a logo to products that the program judges to be less environmentally harmful than comparable products, based on a specific set of award criteria. The operation of each such program differs slightly, but in general they follow a three-step process: product category definition, development of award criteria, and product evaluation. First, product categories are chosen. These categories can generally be suggested by either manufacturers or program officials. Once a product category has been decided upon, criteria are set for receiving a label within that category.

These criteria are usually based on some form of life-cycle consideration, (not necessarily a full life-cycle analysis (LCA)). There is usually a public review of program decisions. After criteria are set, applications are received, candidate products are evaluated, and awards are granted. In general, criteria are reviewed about every three years, and contracts have to be renewed. The review process is designed to provide for a continuous tightening of award criteria, such that only a small percentage of products will qualify for the label, thus providing an incentive for all other product manufacturers to improve the environmental attributes of their products. It is a complex task requiring the consideration of many factors, including environmental policy goals, consumer awareness of environmental issues, trade positioning, effects on imports and exports, and economic effects on domestic industry. Well-known seal-of-approval programs include Germany's Blue Angel, Canada's Eco-logo, and the US's Green Seal.

Seal-of-approval programs tend to have similar administrative structures. In a typical program, the government's environmental agency is involved to some extent. In some situations a government agency administers the program; in others they simply provide informal advice or funding. The bulk of the responsibility rests with a central decision-making board typically composed of academics and scientists, business and trade representatives, consumer groups, environmental groups, and government representatives. Technical expertise is provided by the government, standards-setting organizations, consultants, expert panels, and/or ad hoc task forces established to work on specific product categories.

#### *Single-attribute Certification Programs*

Single-attribute certification programs certify that claims made for a single-attribute of a product meet a specified definition. Such programs define specific terms such as "recycled" or "biodegradable" and accept applications from marketers for verification that their product attribute meets the program definition. If the programs verify that the product attributes meets their definitions, the program awards the use of the logo to the marketer. The primary single

certification program in the US is the Scientific Certification System's (SCS) Single Claim Attribute Certification. Alternatively, programs can set definitions of claims and manufacturers must meet these requirements. This is the case with the US Energy Star program, which sets stringent energy-efficient standards that products must meet before being awarded the "Energy Star."

### **3.2. Negative Labeling Programs**

#### *Hazard/Warning Labels*

Hazard or warning labels are mandatory labels that appear on certain products containing potentially harmful or hazardous ingredients. The purpose of such labels is to point out the negative characteristics of the product clearly and encourage the safe use of potentially hazardous products. Hazard or warning labels are typically mandatory programs that are initiated by a third-party (e.g., a government agency), which require that information be disclosed to consumers for health and safety reasons. Alternatively, manufacturers may voluntarily provide hazard/warning information on their products for liability purposes.

Well known hazard/warning labels in the US include pesticide labeling under FIFRA, which provides important warnings and advice for users; the Surgeon General's warnings on cigarettes; and the skull and crossbones label on poisons. Warning labels specific to health hazards include the State of California's Proposition 65 (see Program Summary Appendix for greater detail), which requires chemicals known to cause cancer or developmental or reproductive toxicity to be listed by the governor. Warnings must also be provided by businesses for a number of specific reasons, which include intentional exposure of individuals to these listed chemicals at significant levels.

Proponents of such disclosure warning labels claim that manufacturers will remove the offending chemicals rather than suffer the market setbacks (e.g., adverse publicity and loss of market share) that a hazard/warning label might cause. They argue that this approach provides a stronger incentive to reformulate products (to avoid hazardous ingredients) than would a voluntary environmental certification program. If true, the results/benefits of such an approach would be more certain to cause marketplace shifts.

### 3.3. Neutral Labeling Programs

#### *Information Disclosure Programs*

Unlike hazard/warning labels, which identify negative attributes, information disclosure programs are neutral. That is, the label contains summary facts that can then be used by consumers in making their purchasing decisions. One important requirement of information disclosure programs is that information needs to be simplified and comparable across products. Since the facts disclosed are not always positive selling features and may not otherwise be reported by marketers, information disclosure programs are usually mandatory. Unlike hazard/warning labels, which usually are mandated for health and safety reasons, information disclosure labels are developed because the program believes that consumers have the “right to know” about the product.

Perhaps the best known information disclosure label is the US Food and Drug Administration’s (FDA) nutrition label. The food label must appear on most processed food sold in the US; labeling of unprocessed fruits and vegetables is voluntary. Examples of environmental information disclosure labels include the automobile Fuel Economy Information Program and the Energy Guide program. The Fuel Economy Information Program is an EPA/Department of Energy (DOE) initiative; the Energy Guide is an EPA initiative. The automobile Fuel Economy Information Program requires that a label listing the mileage rating be affixed to all new cars and trucks sold. Begun as a voluntary program in 1973, it soon became mandatory for auto makers to report the mileage rating of new vehicles. The Energy Guide program requires that a label disclosing energy consumption per year or an energy efficiency rating be affixed to certain household appliances, such as refrigerators, refrigerator-freezers, freezers, water heaters, clothes washers, dishwashers, furnaces, room air conditioners, central air conditioners, and heat pumps.

An interesting hybrid of the information disclosure label is the battery labeling program. This program, administered by the EPA Office of Solid Waste, requires that a label appear on certain batteries and rechargeable consumer products, stating the chemical name (nickel-cadmium or lead) and the phrase “BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.” While this type of labeling is mandatory and presents neutral information (the chemical name), it also notifies users/consumers of their legal obligation to dispose of the product properly.

#### *Report Cards*

The report card label, one type of information disclosure label, uses a standardized format to categorize and quantify various impacts/burdens that a product has on the environment. Specific and consistent information (for example, pounds of air emissions) is presented on the label, allowing a comparison across categories. By providing the consumer with standardized detailed information and little interpretation, the report card allows consumers to make judgments based on their particular environmental concerns.

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In the US, Scientific Certification Systems (SCS) has prepared an eco-profile that can be applied

to any product category. These eco-profiles are based on a life-cycle assessment (LCA), which is the first step in the more comprehensive Life Cycle Stressor Effects Assessment (LCSEA). The SCS eco-profile evaluation is a multi-step process involving the identification and quantification of inputs and outputs for every stage of a product's life cycle including raw materials extraction, material processing, manufacturing, distribution, use, and disposal. Based on the assessment, three claims of achievement may be certified:

- ▶ certified environmental state-of-the-art,
- ▶ certified environmental improvements, and
- ▶ certified environmental advantages.